

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte PETER SHELLEY MILLS, ANTHONY CECIL PLAISTED,  
and MICHAEL ROBERT AMICK

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Appeal No. 2000-2288  
Application No. 08/960,576

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ON BRIEF

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Before CALVERT, FRANKFORT, and STAAB, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's rejection of claims 1 through 24, all of the claims pending in this application.

Appellants' invention relates to a mine stopping (claim 15), i.e., an air impermeable wall or partition which is constructed and positioned to direct fresh air into selected

areas of a mine; a kit of components for installing a mine stopping (claim 11) and a method for installing a stopping in a mine opening (claims 1 and 19). Of concern to appellants is the need for a mine stopping that can be installed in a quick manner. More particular, appellants note (e.g., specification, page 2) that they have discovered that by use of a critical size of mesh an effective stopping can be prepared by applying the mortar material to the screen from one side only, because at such critical mesh sizes the mortar is able, when applied by spraying, to penetrate the mesh to a small degree thereby causing the mesh to become well embedded in the mortar and result in an effective stopping. The critical mesh size is said to be about 2 to 24 mesh, preferably about 10 to 20 mesh, most preferably about 12 to 16 mesh. On page 7, it is indicated that mesh measurements are defined as the number of openings/inch from the center of the wires making up the mesh. In addition to faster installation time, the use of the critical size mesh described above is also said (specification, page 8) to avoid the problem of shrinkage cracking. Independent claims 1, 11, 15 and 19 are representative of the subject matter on appeal and a copy of

Appeal No. 2000-2288  
Application No. 08/960,576

those claims may be found in the Appendix to appellants' brief  
(Paper No. 10).

The prior art references of record relied upon by the  
examiner in rejecting the appealed claims are:

Burton	4,096,702	Jun. 27,
1978		
Werthmann	4,398,451	Aug.
16, 1983		
Plaisted et al.	5,165,958	Nov. 24,
1992		
(Plaisted '958)		

Additional prior art references of record relied upon by  
this merits panel of the Board in new rejections entered *infra*  
pursuant to 37 CFR § 1.196(b) are:

Bear	3,302,343	Feb.
7, 1967		
Smith	AU-A-67882/87	Aug. 20,
1987		
(Australian Patent)		

Appeal No. 2000-2288  
Application No. 08/960,576

Claim 7 stands rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim that which appellants regard as their invention.

In addition to the foregoing rejection, the appealed claims stand rejected under 35 U.S.C. § 103(a) as follows:

a) claims 1 through 5 and 7 through 24 as being obvious over Burton in view of Plaisted '958; and

b) claim 6 as being obvious over Burton in view of Plaisted '958 and Werthmann.

Rather than reiterate the examiner's full statement of the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellants regarding those rejections, we make reference to the examiner's answer (Paper No. 14, mailed March 9, 2000) for the examiner's reasoning in support of the rejections, and to appellants' brief (Paper No. 10, filed September 10, 1999), request to reinstate appeal

Appeal No. 2000-2288  
Application No. 08/960,576

(Paper No. 13, filed January 5, 2000) and reply brief (Paper No. 15, filed May 9, 2000) for the arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we have made the determinations which follow.

We turn first to the examiner's rejection of claim 7 under 35 U.S.C. § 112, second paragraph. After reviewing appellants' specification and claim 7 in light thereof, and also in light of appellants' arguments in their brief, it is our opinion that the scope and content of the subject matter embraced by appellants' claim 7 is reasonably clear and definite, and fulfills the requirements of 35 U.S.C. § 112, second paragraph. In our view, the examiner's criticism of the language used in appellants' claim 7 is unwarranted. We

Appeal No. 2000-2288  
Application No. 08/960,576

know of no requirement that alternative method steps like those in claim 7 on appeal must be "equivalent" in the sense urged by the examiner (answer, pages 8-9). In determining whether a claim sets out and circumscribes a particular area with a reasonable degree of precision and particularity, the definiteness of the language employed in the claim must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. See In re Johnson, 558 F.2d 1008, 1016 n.17, 194 USPQ 187, 194 n.17 (CCPA 1977). When that standard of evaluation is applied to the language employed in claim 7 on appeal, we are of the opinion that the claim sets out and circumscribes a particular area with a reasonable degree of precision and particularity, and that one of ordinary skill in the art would clearly understand what is claimed. Accordingly, we will not sustain the examiner's rejection of appellant's claim 7 under 35 U.S.C. § 112, second paragraph.

We next look to the examiner's prior art rejections of the appealed claims, turning first to the rejection of claims 1 through 5 and 7 through 24 under § 103(a) as being unpatentable over Burton in view of Plaisted '958. After a careful assessment of appellants' independent claims 1, 11, 15 and 19 and of the Burton and Plaisted '958 references, we must agree with appellants' position as set forth in the brief (pages 5-14) and in the reply brief, that the combined teachings of the applied references do not disclose, teach or suggest the mine stopping, kit, or method of installing a mine stopping as defined in the claims before us on appeal. While Burton generally discloses a mine stopping formed by employing a wire mesh or screening (16) and applying a cement or plaster material (18) to the wire mesh by spreading the cement or plaster over the wire mesh and in contact with the walls, floor and ceiling of the tunnel (col. 1, lines 52-60), it says nothing about spraying the cement or plaster on the wire mesh and nothing about mesh size. Plaisted '958 discloses a ready-to-use plaster/mortar composition used for sealing mine stoppings. The plaster/mortar material is said to differ from the prior art ready-made mortar sealants which function by

Appeal No. 2000-2288  
Application No. 08/960,576

evaporation of water and therefore need dry conditions before setting hard, by being capable of setting in a predetermined time in either wet or dry conditions. Each of the field tests set forth in Plaisted '958 (column 4, line 60, *et seq.*) relates to applying the plaster/mortar material therein to a wet hollow concrete block stopping by spraying. Plaisted '958 says nothing about use of the plaster/mortar composition therein on wire mesh or screening.

While it is certainly true that the wire mesh in Burton must have mesh openings of some given size, there is nothing in that reference which mentions or relates to the spraying of a plaster/mortar material onto a wire mesh to form a mine stopping. Burton merely mentions spreading the plaster/mortar over the wire mesh, presumably by use of a hand trowel. Thus, there is nothing in Burton which teaches or suggests a mesh size like that claimed by appellants, and nothing to establish that mesh size would have been viewed as being a result effective variable for the construction of an appropriate mine stopping by spraying of plaster/mortar onto a wire mesh, especially where the spraying is intended to take place from



Appeal No. 2000-2288  
Application No. 08/960,576

only one side of the wire mesh as desired by appellants. As for Plaisted '958, this patent deals with spraying a plaster/mortar composition on a hollow concrete block mine stopping and says nothing about spraying the composition therein on a wire mesh or screening to form a mine stopping, thus this patent does not supply that which is lacking in Burton.

In light of the foregoing, we must refuse to sustain the examiner's rejection of independent claims 1, 11, 15 and 19, and claims 2 through 5, 7 through 10, 12 through 14, 16 through 18 and 20 through 24 which depend therefrom, under § 103(a) as being unpatentable over Burton in view of Plaisted '958.

As for the examiner's rejection of claim 6 under § 103(a) as being unpatentable over Burton in view of Plaisted '958 and Werthmann, we have reviewed the Werthmann patent, but find nothing therein that provides for the deficiencies noted above in the basic combination of Burton and Plaisted '958.

Appeal No. 2000-2288  
Application No. 08/960,576

Accordingly, we will not sustain the examiner's rejection of dependent claim 6 under 35 U.S.C. § 103(a).

To summarize our decision, we note that 1) the examiner's rejection of claim 7 under 35 U.S.C. § 112, second paragraph, has not been sustained, 2) the examiner's rejection of claims 1 through 5 and 7 through 24 under § 103(a) as being obvious over Burton in view of Plaisted '958 has not been sustained, and  
3) the examiner's rejection of claim 6 under 35 U.S.C. § 103(a) based on Burton in view of Plaisted '958 and Werthmann has not been sustained.

As should be apparent from the foregoing, the decision of the examiner rejecting claims 1 through 24 of the present application is, accordingly, reversed.

Under the provisions of 37 CFR § 1.196(b), we enter the following new grounds of rejection.

Claims 15 and 17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Smith. Smith discloses a mine stopping comprising a screen/mesh (9) having a mesh size of from 1.5 x 1.5 mm to 2.5 x 2.5 mm (within appellants' claimed range of 10-24 mesh), and an airtight coating of an acrylic polymer or copolymer mortar composition covering the screen/mesh. The mesh size of Smith also falls within the smaller range (12-16 mesh) set forth in appellants' claim 17.

Claims 1 through 3, 7, 11 and 21 are rejected under 35 U.S.C. § 103 as being unpatentable over Bear in view of Smith. Bear discloses a method of installing a mine stopping wherein a screen mesh (46) is securely fixed in a mine opening by fasteners (44) that engage structural supports mounted to the roof, floor and side walls of the mine opening and wherein a plastic foam mortar composition (48) is spray applied to the screen mesh from one side thereof to form a coating on the screen, and the spraying is continued until the stopping is substantially airtight. Bear does not disclose a mesh size for the screen panels (46) like that claimed by appellants. Smith discloses a mine stopping comprising a screen/mesh (9)

having a mesh size of from 1.5 x 1.5 mm to 2.5 x 2.5 mm (within appellants' claimed ranges of 10-24 mesh, 10-20 mesh and 12-16 mesh), and a spray applied airtight coating of an acrylic polymer or copolymer mortar composition covering the screen/mesh. In our opinion, it would have been obvious to one of ordinary skill in the art at the time of appellants' invention to have used a screen mesh in Bear having a mesh sized as taught in Smith so that the sprayed plastic foam mortar in Bear would readily adhere to the screen and be impregnated through the openings of the screen as desired in Bear (col. 3, lines 33-47) when sprayed from only one side of the screen panels as seen in Figures 2, 4 and 5 of Bear. As for the kit of claim 11, we are of the view that it would have been obvious to one of ordinary skill in the art to assemble a "kit" of components like that set forth in claim 11 on appeal prior to entering the mine to construct a mine stopping of the type suggested by the collective teachings of Bear and Smith. As is clear from Bear (col. 7, lines 8-18), both prefabricated screen panels and the containers of foam plastic mortar composition are portable components that can be assembled together in a "kit" and then transported into the mine.

Appeal No. 2000-2288  
Application No. 08/960,576

As for the remaining claims on appeal, we urge the examiner to carefully consider those claims in light of the art applied in the above noted rejections and any other prior art the examiner may be aware of so as to ascertain whether the remaining claims may also be subject to an obviousness rejection under 35 U.S.C.

§ 103(a). For example, certain of the remaining claims on appeal set forth that the screen is formed of a steel wire having a diameter of about 0.010 to 0.030 inches or having a tensile strength of at least 150 lbs/inch (? lbs/in<sup>2</sup>), which limitations are not found in Bear and Smith. Also some of the remaining claims call for a particular mortar composition which is not taught or suggested in Bear and Smith.

This decision contains new grounds of rejection pursuant to 37 CFR § 1.196(b). 37 CFR § 1.196(b) provides that "[a] new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise

Appeal No. 2000-2288  
Application No. 08/960,576

one of the following two options with respect to the new grounds of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED; 37 CFR § 1.196(b)

IAN A. CALVERT	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
CHARLES E. FRANKFORT	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES

Appeal No. 2000-2288  
Application No. 08/960,576

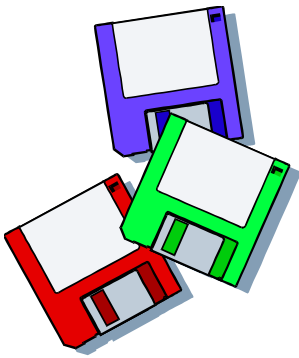
LAWRENCE J. STAAB )  
Administrative Patent Judge )

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Appeal No. 2000-2288  
Application No. 08/960,576

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Appeal No. 2000-2288

Application No. 08/960,576

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DECISION: REVERSED; 1.196(b)

Prepared: November 6, 2002

Draft                      Final

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PALM / ACTS 2 / BOOK

DISK (FOIA) / REPORT